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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/736,023 | 02/28/2001 | Philip Edwin Howse | REF/HOWSE/09 | 5866 |

7590 05/02/2005

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| EXAMINER |
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ARK, DARREN W

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| ART UNIT | PAPER NUMBER |
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3643

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------|--------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/736,023 | HOWSE ET AL. | |
| | Examiner | Art Unit | |
| | Darren W. Ark | 3643 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16, 18-44, 46-48 and 50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14, 23-29, 46 and 47 is/are allowed.
- 6) ☒ Claim(s) 15, 16, 18-22, 30-44, 48 and 50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to claim 31, the phrase "the composition consists of the magnetic particles" renders the claim vague and indefinite since claim 30 sets forth that the composition includes particles comprising a magnetic material in combination with at least one agent selected from the group consisting of a pesticide and a behavior modifying chemical, therefore claim 31 cannot recite that the composition only has magnetic particles.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 15, 16, 18, 19, 21, 22, 50 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Marston 3,056,724.

In regard to claim 15, Marston discloses a pesticidal composition (pellet for ruminants) in particulate form which comprises particles (pellets which may be cylindrical, spherical, or spheroidal in shape) each comprising a core of an inert (carrier binder or base comprising clay, phenol-formaldehyde or other suitable synthetic plastic; see col. 8, lines 49-74; "inert" defined as substances that are not active and do not attack a particular pest) substance having a pesticide or behavior modifying chemical impregnated thereon or associated therewith (low density biologically active substance the particles of which are moulded or compressed around the core; see col. 7, lines 56-end & col. 8, lines 1-47, esp. lines 38-41) and the core being impregnated or coated with a magnetic material (cobalt oxide mixed with iron powder; also metal core which for example could be an iron bar or steel ball or roller bearing; also see col. 4, lines 31-36 & col. 8, lines 54-59).

In regard to claim 50, Marston discloses a plurality of particles (pellets) of a magnetic material (cobalt oxide with iron powder) having only on an external coating comprising a pesticide or behaviour modifying chemical (low density biologically active substance).

5. Claims 15, 16, 18-21, 30-32, 34-44, 48, 50 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Gref et al. 5,565,215.

In regard to claim 15, Gref et al. discloses a pesticidal composition (insecticide; see col. 14, lines 40-46) in particulate form (nanoparticle) comprising composite

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particles each comprising a core of inert ("inert" defined as substances that are not active and do not attack a particular pest) substance (polymer forming the nanoparticle) having a pesticide or behaviour modifying chemical impregnated thereon or associated therewith (biologically active materials or drugs incorporated into the polymer at the time of nanoparticle formation) and the core being impregnated or coated with a magnetic material (magnetic particles).

In regard to claim 20, Gref et al. discloses the behavior modifying chemical being a pheromone (see col. 14, lines 41-46).

In regard to claim 30, Gref et al. discloses non-pharmaceutical uses for the particles which include selective delivery of pesticides, insecticides, and pheromones which inherently means coating a surface where insects will come into contact with the biocide or pheromone (basic trap structure not being recited).

In regard to claim 50, Gref et al. discloses a plurality of particles (capsules) of a magnetic material (core material) having only on an external coating comprising a pesticide or behaviour modifying chemical (biocide).

6. Claim 50 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Galy 5,985,660.

Galy discloses a pesticidal composition comprising a plurality of discrete particles of a magnetic material (magnetic beads; see col. 8, lines 65-end) wherein a pesticide or behavior modifying chemical (anti-body coated on the magnetic beads) is coated onto the particles of the magnetic material.

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7. Claims 15, 16, 18, 21, 22, 30, 31, 33-41, 44, 48 50 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Yaffe et al. 3,274,052.

In regard to claim 15, Yaffe et al. discloses a pesticidal composition in particulate form (granular) which comprises composite particles (granules) each comprising a core of inert substrate (inert surface active agent on granular core materials which include iron; see col. 3, lines 68-end & col. 4, lines 1-25) having a pesticide (toxicant may be pesticide; see col. 3, lines 23-26) or behaviour modifying chemical impregnated thereon or associated therewith and the core being impregnated with a magnetic material (iron).

In regard to claims 16 and 39, see col. 4, lines 21-25.

In regard to claim 30, Yaffe et al. discloses that the pesticide granules are to be distributed by aircraft or standard ground equipment and can be broadcast onto the soil or worked into the soil in areas such as fields of row crops, orchards, ditches, stream banks, and even public places such as parks and playgrounds.

In regard to claim 50, Yaffe et al. discloses a pesticidal composition comprising a plurality of discrete particles of a magnetic material (granular, insoluble core materials such as iron) wherein a pesticide or behavior modifying chemical (toxicant coating on the core particles) is coated onto the particles of the magnetic material.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 22, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gref et al. 5,565,215 in view of Klaveness et al. 5,693,321.

Gref et al. discloses magnetic materials for being acted upon by a magnetic field and for diagnostic imaging, but does not particularly disclose the magnetic material being a ferromagnetic oxide. Klaveness et al. discloses that polymer particles that may contain paramagnetic, superparamagnetic or ferromagnetic substances which are of use in magnetic resonance imaging diagnostics. It would have been obvious to a person of ordinary skill in the art to modify the composition of Gref et al. such that it has the magnetic material comprising a ferromagnetic material in view of Klaveness et al. since it is a known material used in diagnostic imaging and suitable and safe for use in medical applications.

10. Claims 19, 20, 42, 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yaffe et al. 3,274,052 in view of Marshall 5,888,500.

Yaffe et al. does not disclose the pesticide selected from the group consisting of a bacterium, virus or fungus or the behaviour modifying chemical being a pheromone. Marshall discloses biocarrier with a mixture including a biological control agent which includes pheromones and biopesticides which include fungi, viruses, and bacteria. It would have been obvious to modify the granules of Yaffe et al. such that they utilize a pesticide selected from the group consisting of a bacterium, virus or fungus or a behaviour modifying chemical being a pheromone in view of Marshall in order to provide

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an agent which is adaptable to handle many different situations and different types of insects.

11. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yaffe et al. 3,274,052.

Yaffe et al. discloses the core materials having a particle size range or about 4 (4.76mm/4760 micron) to 80 (.177mm/177 micron) mesh, but does not disclose the particles with an average size diameter in the range of from 2 to 100 micrometers. It would have been an obvious matter of design choice to make the particle size diameter in the range of 2 to 100 micrometers, since applicant has not disclosed that by doing so produces any unexpected results or is critical to the design and because a person of ordinary skill in the art would readily design the particles such that their diameter is appropriate for the size of the pests or insects to be destroyed.

Allowable Subject Matter

12. Claims 1-14, 23-29, 46, 47 are allowed.

13. The following is an examiner's statement of reasons for allowance:

In regard to claim 1, the prior art of record does not disclose the method of trapping insects comprising the step of coating a zone of or within the housing with a composition including particles comprising magnetic material, whereby an insect in contact with the composition becomes at least partially coated with the composition and is destabilized, thereby falling into the trapping area.

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In regard to claim 23, the prior art of record does not disclose an insect trap comprising a zone of the housing or a zone within the housing comprising a magnetically polarized material and the zone being coated with a composition including particles comprising a magnetic material of opposite polarity to that of the magnetically polarized material.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wallach '960 discloses a method of coupling targeting molecules to lipid vesicles wherein lipophilic materials such as pheromones and organic pesticides can be encapsulated in the vesicles and that a diagnostic agent can be encapsulated therein such as magnetic particles (see claims 20 & 23).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darren W. Ark whose telephone number is (571) 272-6885. The examiner can normally be reached on M-Th, 8:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on (571) 272-6891. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Darren W. Ark
Primary Examiner
Art Unit 3643

DWA